

## EMBRACING OPENNESS: MUSIC TECHNOLOGY PEDAGOGY AND CURRICULA AFTER THE DECLINE OF THE STUDIO

*Mat Dalglish, Matt Bellingham*

Music technology historically relied on the economics of disparity: tens of millions of records sold underwrote productions by professional engineers and producers at expensive, well-equipped recording studios. The role of the studio changed from a purely documentary function to a space for creative experimentation, but the studio model of production persisted from the 1950s into the 1990s. It was shaken to its foundations by the audio-capable personal computer and, shortly after, widespread access to the internet. Suddenly, almost anyone could produce music in their bedroom and share it worldwide. As conditions caused the music industry to decline in the early 2000s, there ensued a seemingly counterintuitive paradox: as many professional studios closed, music technology provision in national FE and HE institutions continued to expand.

In 2011-12 we assumed responsibility for the undergraduate Music Technology course at the University of Wolverhampton. The course attempted to prepare students for studio-related employment opportunities that continued to shrink in number. It also relied heavily on proprietary software, and restrictive licenses and contracts significantly shaped course content. We describe how we transformed the course to embrace openness with respect to: specialised software such as Pure Data, SuperCollider and Ardour; audio-related hardware design using Arduino, Axoloti and Raspberry Pi; project code and project files; and course learning materials. We discuss how this open turn has: helped students to better understand and build

on the work of others; reduced dependence on closed, commercial solutions by fostering self-sufficiency through do-it-yourself approaches; encouraged a focus on technological literacy by focussing on the choice, function, and interconnectedness of software and hardware; encouraged crossover into related areas such as video games and Human-Computer Interaction; and enabled students to use many of the same tools at home and after graduation as in class.

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**Dr. Mat Dagleish** has created new musical instruments and interfaces, sound installations and music-related software tools for more than a decade. Born in Birmingham, Mat studied fine art at Northumbria University and new media at Coventry University, before a PhD that explored how the live electronics can inform the design of digital musical instruments. From 2009-2011 Mat was a researcher at the Music Computing Lab of the Open University and joined the music department at the University of Wolverhampton in 2010. He was course leader for BA (Hons) Music Technology from 2011-13 and became course leader for MSc Audio Technology upon its inception in September 2013. Mat is a Senior Fellow of the HEA and has been Key Proposer for the validation of multiple courses at undergraduate and postgraduate level. He has also acted as academic consultant for Edexcel/Pearson and the University of South Wales. Mat is currently a Senior Lecturer in Music Technology at the University of Wolverhampton and Subject Leader of the MSc Audio Technology, MMus Music and MA Musical Theatre programmes.

**Matt Bellingham** is a musician, engineer, producer, software developer, and educator. He studied at the University of Salford before joining the Manchester music scene of the mid '90s. Matt worked in numerous studios with various record labels before moving into education in the early 2000s. Matt has developed a range of innovative courses in and around Music Technology for universities and other providers, including Edexcel, the OCN, and others. Matt is currently Senior Lecturer and Subject Leader of Music Technology at the University of Wolverhampton. He joined the University in 2012, taking over leadership of the undergraduate programmes from Mat Dagleish in 2013. Matt and Mat wrote the MSc in Audio Technology and rewrote the undergraduate courses around this time. Matt is a Senior Fellow of the HEA, an External Examiner at the University of Portsmouth, and has been an invited external academic at a number of university course validations. He is nearing completion of a PhD in the area of user interface design for algorithmic music composition software at the Open University's Music Computing Lab.

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AND SO IT WAS WRITTEN...



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death of the studio, FLOSS, music, music technology, open source, openness

Open Education at UCL

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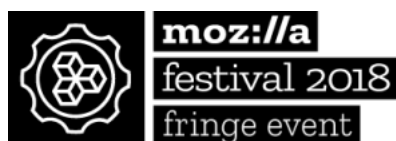
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**KEYWORDS**

◀ assessment for learning ▶ collaboration ▶ communication ▶ community ▶ community repository ▶ connected learning  
◀ critical infrastructuring ▶ curation ▶ data literacy ▶ death of the studio ▶ digital literacies ▶ digital skills ▶ Disruption  
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